

REMARKS

In the outstanding Office Action, the Examiner took the following actions:

(a) rejected claims 1-32 under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention;

(b) rejected claims 1-6, 8, 11, and 33 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,666,438 to Beernink et al. ("Beernink '438");

(c) rejected claims 1-6, 8-16, 18-24, and 26-34 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,666,439 to Beernink et al. ("Beernink '439");

(d) rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '438 in view of Beernink '439;

(e) rejected claims 7 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '439 in view of U.S. Patent Application Publication No. 2001/0026639 to Sparr et al. ("Sparr"); and

(f) rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '439 in view of U.S. Patent No. 5,970,170 to Kadashevich et al. ("Kadashevich").

By this reply, claims 1, 8, 15, 19, and 26 have been amended. Claims 1-34 remain pending in this application. No new matter has been entered by this reply.

I. Rejection of claims 1-32 under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention

Applicant respectfully traverses the rejection of claims 1-32 as not falling within one of the four statutory categories of invention. However, in an effort to expedite prosecution, Applicant has amended the claims. For example, independent claim 1 has been amended to recite, *inter alia*, "[a] method performed by a recognition device for presenting a recognized handwritten symbol, the recognition device having a processor

and detection means for detecting entry of a handwritten symbol, the method comprising the steps of: detecting, by the detection means, a handwritten pattern; [and] recognizing, by the processor, the detected handwritten pattern." As set forth in In re Bilski, "a claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." In re Bilski, 545 F.3d 943, 954 (Fed. Cir. 2008)(en banc). Because independent claim 1 is tied to a particular machine or apparatus (i.e., a recognition device, including a processor and a detection means), Applicant submits that independent claim 1 recites statutory subject matter.

Independent claim 15 has been amended in a manner similar to claim 1. Because independent claim 15 is tied to a particular machine or apparatus (i.e., a recognition device, including a processor and a detection means), Applicant submits that independent claim 15 recites statutory subject matter. See id.

Claims 2-14 and 16-32, which depend directly or indirectly from one of independent claims 1 and 15, recite statutory subject matter at least due to their dependence from independent claims 1 and 15.

For at least the above reasons, claims 1-32 meet the requirements of 35 U.S.C. § 101. Therefore, Applicant requests reconsideration and withdrawal of the rejection.

II. Rejection of claims 1-6, 8, 11, and 33 under 35 U.S.C. § 102(b) as being anticipated by Beernink '438

Applicant respectfully traverses the rejection of claims 1-6, 8, 11, and 33 as being anticipated by Beernink '438. Beernink '438 fails to teach, or even suggest, each and every element recited in those claims.

Amended independent claim 1 recites, *inter alia*,

comparing the handwritten pattern to a plurality of templates . . . [and] returning a best template . . . that represents one of the plurality of writing symbol patterns . . . wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol; and presenting the best writing symbol pattern of the best template. (Emphasis added).

Page 8 of the Office Action provides a drawing describing the Examiner's characterization of independent claim 1. The drawing, however, is incorrect. The drawing depicts two templates, one represented by "a" and the other represented by "z" in section 2. The drawing indicates that a plurality of writing symbol patterns correspond to the "a" template and a plurality of writing symbol patterns correspond to the "z" template. The plurality of writing symbol patterns corresponding to the "a" template and the plurality of writing symbol patterns corresponding to the "z" template in the drawing represent different ways of writing different symbols (for the letter "a" and the letter "z"). Independent claim 1, however, requires that "at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol" (emphasis added). Thus, the drawing on page 8 of the Office Action mischaracterizes the features recited in independent claim 1.

In response to the Office Action's mischaracterization, Applicant submits the diagram below ("Diagram") for illustrative purposes.

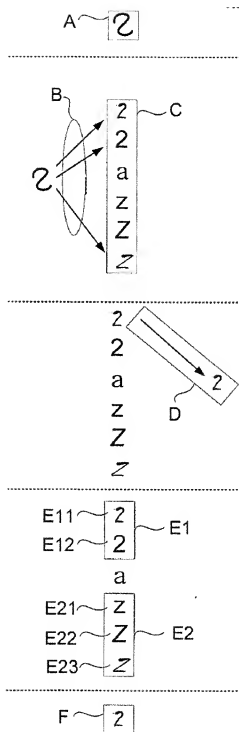


DIAGRAM A

The Diagram is not a portion of the specification, but is provided merely to help facilitate the Examiner's understanding of Applicant's disclosure. The top of the Diagram, above the first horizontal dotted line, depicts parts of a detecting step, with a handwritten pattern (i.e., a "backwards" S) contained in Box A. Between the top horizontal dotted line and the bottom-most horizontal dotted line, the Diagram depicts a recognizing step. In the section below the first horizontal dotted line, the handwritten pattern is compared to a plurality of templates. Arrow B is indicative of comparing, and the items in Box C are indicative of the plurality of templates. The templates in Box C represent the writing symbols "2", "a", and "z". In the section below the second horizontal dotted line, a best template is selected from the plurality of templates. The best template is shown in Box D. In the section below the third horizontal dotted line, the Diagram shows that there are two different patterns for writing the symbol "2" (E11 and E12 in Box E1), one pattern for writing the symbol "a", and three different patterns for writing the symbol "z" (E21, E22, and E23 in Box E2). In the section below the bottom-most horizontal dotted line, a best writing symbol pattern of the best template is presented, as shown in Box F. Thus, not only is the best writing symbol "2" returned, but also the most similar way of writing the best writing symbol is returned, disclosing the font, the style, or other calligraphic attributes of the symbol. This gives a user information of how a handwritten pattern is being interpreted, giving the user an opportunity to adapt his or her writing so less false interpretations are made.

Beernink '438 is quite different. Beernink '438 discloses,

[T]ext, graphical, and other data can then be entered into this second note area 54b. For example, the text object T is a phrase that has been entered into second note area 54b. In the described embodiment, text

object T was originally entered as several strokes of handwritten "ink" which were recognized by the CPU and converted into printed words of the object T. Beernink '438, column 5, lines 63-67.

The present invention makes use of a recognizer implemented by CPU 12 to recognize ink strokes input by a user with stylus 38. The recognizer analyzes the entered ink and attempts to match the ink to a letter, word, shape, or other symbol present in a database accessible to the recognizer. Id. at column 7, lines 19-23.

Beernink '438 does not, for example, describe the letter, word, shape, or other symbol, matched to the ink strokes input by the user, and thus, Beernink '438 cannot teach that at least two of the letter, word, shape, or other symbol "comprise different ones of a plurality of writing symbol patterns, which represent different ways of writing a single symbol," as recited in independent claim 1.

Beernink '438 discloses that a user can navigate from note area 54b to preference screens 69, shown in FIGS. 6a, 6b, 7, and 8, which may include a letter styles screen 76. See Beernink '438, column 7, lines 66 and 67; and column 8, lines 1 and 2. Letter styles screen 76 relates to a learning phase of the system in Beernink '438, and is used to capture data that is later used by the recognizer. See Id. at column 2, lines 42-47; and column 10, lines 13-16. While Beernink '438 discloses different letter styles in letter style screen 76, Beernink '438 does not teach that the ink strokes input by a user are compared to the letter styles. Rather, Beernink '438 discloses:

[r]eferring now to FIG. 8 A user selects one of the characters 89 of which he wishes to modify the letter style CPU 12 then displays style letters 95 for the selected character 89. For each displayed style letter 95, the user can select whether he or she writes that letter style either "sometimes" or "rarely" by actuating one of toggles 97 In the described embodiment, the shape of style letters 95 is presented in letter style screen 76, as well as the order of inputting the ink strokes which

comprise the style letters The CPU preferably displays a real-time animation of the selected style letter being drawn Computer system 10 automatically saves adaptive learning data associated with the style letters selected and modified by the user. Id. at column 10, lines 8-31 and 42-44.

Since Beernink '438 does not teach that the letter, word, shape, or other symbol, are matched to the ink strokes input by the user, and Beernink '438 does not teach that the ink strokes input by the user are compared to characters 89 or style letters 95 in letter style screen 76, Beernink '438 fails to teach or suggest "comparing the handwritten pattern to a plurality of templates . . . wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 1. For at least this reason, Beernink '438 fails to anticipate independent claim 1. Applicant respectfully requests reconsideration of the rejection of independent claim 1, and the timely allowance of independent claim 1.

Applicant respectfully disagrees with the assertions of the Office Action, that FIGS. 6-8 of Beernink '438, and in particular, style letters 95 of FIG. 8, shows

an example of a handwriting style being stored in the tablet to be compared with the user's handwriting using a stylus (e.g., fig. 3). Fig. 6-8 is also an indicator that that user physically wrote that handwriting style that is now stored to later be compared at another time.

Beernink '438 does describe a letter or symbol (e.g., fig. 8, item 95a) being compared with the user's handwriting inputted in fig. 3. The ink strokes input in fig. 3 are being compared to stored characters 89 or 95 because that is the primary use of the invention (to recognize handwriting of different users of a pen-based computer system). Office Action, page 3.

Applicant submits that the Office Action's assertions with respect to Beernink '438 are not supported by the reference. For example, the assertion that style letters 95 are

compared with a user's handwriting is unsupported. Beernink '438 discloses that a recognizer analyzes "ink" entered by a user and attempts to match it to a letter, word, shape, or other symbol in a database, not to style letters 95 as alleged in the Office Action.

Furthermore, page 7 of the Office Action characterizes characters 89 from FIG. 8 of Beernink '438 as corresponding to the "plurality of templates" recited in independent claim 1, and style letters 95 of Beernink '438 as corresponding to the "plurality of writing symbol patterns" recited in independent claim 1. However, independent claim 1 recites that "at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol." No two characters 89 of Beernink '438 comprise different ones of style letters 95 which represent different ways of writing a single symbol. For example, while character "F" of characters 89 has style letters 95a and 95b for writing a symbol "f", none of the other characters 89 has style letters for writing that same symbol "f". Since no two of characters 89 comprise different ones of style letters 95 which represent different ways of writing a single symbol, Beernink '438 fails to teach "at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 1. For at least this additional reason, Beernink '438 cannot anticipate claim 1.

Also, Beernink '438 does not teach, or even suggest, that style letters 95 are presented. Rather, the computer system in Beernink '438 presents printed words/letters (shown in text object "T" of FIG. 2). See Beernink '438, column 5, lines 63-67. Since style letters 95 are not presented, Beernink '438 fails to teach "presenting the best

writing symbol pattern of the best template," as recited in claim 1. For at least this additional reason, Beernink '438 cannot anticipate claim 1. Applicant requests reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Beernink '438.

Claims 2-6, 8, and 11 each depend from independent claim 1, and are allowable for at least the reasons stated above with respect to claim 1. In addition, each of the dependent claims recites unique combinations that are neither taught nor suggested by the cited art, and therefore each is also separately patentable. Moreover, the Office Action provides no explanation of how, if at all, Beernink '438 anticipates claims 2-6, 8, and 11.

Independent claim 33, while of different scope, recites elements similar to those recited in independent claim 1. For example, independent claim 33 recites, *inter alia*, "a database comprising templates that comprise a plurality of writing symbol patterns . . . wherein at least two of the templates comprising different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol; and means for recognizing the detected handwritten pattern and returning one of the plurality of patterns of a best template of the handwritten pattern, said best template being most similar to the handwritten pattern, wherein said device is arranged to present the one of the plurality of writing symbol patterns of the best template on the screen," emphasis added. Moreover, the Office Action fails to provide any explanation of how, if at all, Beernink '438 anticipates independent claim 33. Thus, Beernink '438 fails to teach each and every feature recited in independent claim 33. Accordingly, independent claim 33 is allowable at least for reasons similar to those discussed above with respect

to independent claim 1. Applicant respectfully requests the timely allowance of independent claim 33.

III. Rejection of claims 1-6, 8-16, 18-24, and 26-34 under 35 U.S.C. § 102(b) as being anticipated by Beernink '439

Applicant respectfully traverses the rejection of claims 1-6, 8-16, 18-24, and 26-34 as being anticipated by Beernink '439. Beernink '439 fails to teach, or even suggest, each and every feature recited in those claims.

Independent claim 1 recites, for example,

comparing the handwritten pattern to a plurality of templates . . . [and] returning a best template . . . that represents one of the plurality of writing symbol patterns as a best writing symbol pattern which . . . is most similar to the handwritten pattern, wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol; and presenting the best writing symbol pattern of the best template. Emphasis added.

Beernink '439 fails to teach at least these elements. Beernink '439 discloses,

[A]ssume that a user of a pen-based computer system 10 utilized a stylus 110 to enter an ink word representation corresponding to the selected word 164. In turn, recognition software implemented on the computer system 10 processed the ink word and produced a "best guess" being the selected word 164. In this case, the character string "correct" is displayed as the best guess of the selected word 164.

FIG. 5 illustrates a response of the boxed input correction system to the selected word 164 being selected to invoke a pop-up corrector 168 in accordance with one embodiment of the present invention. The pop-up corrector provides an alternates list 170, an ink word 172 The alternates list 170 provides the user with some character strings which the recognition software believes are close matches for the ink word 172. The ink word 172 represents the original strokes which comprised the word which the user entered. Beernink '439, column 10, lines 9-27.

Page 9 of the Office Action characterizes character strings from alternates list 170 of Beernink '439 as corresponding to the "plurality of templates" recited in

independent claim 1, and the letters forming the character strings as corresponding to the “plurality of writing symbol patterns” recited in claims. However, this is not correct.

Independent claim 1 recites that “at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol.” None of the letters forming the character strings in Beernink '439 represent different ways of writing a single symbol. For example, the first, third, and fourth character strings of Beernink '439 each include a letter “C”, but that letter “C” is identical in all three instances. Therefore, the letters “C” in the first, third, and fourth character strings of Beernink '439 do not represent different ways of writing a single symbol, but rather, represent identical ways of writing a single symbol.

In contrast, the attached Diagram shows different ways of writing a single symbol. For example, the Diagram shows different ways E11 and E12 of writing a single symbol, that symbol being the number “2”. The Diagram also shows different ways E21, E22, and E23 of writing a single symbol, that symbol being a capital letter “Z”. The capital letter “C” and the lower-case letter “c” in the character strings of Beernink '439, however, represent ways of writing different symbols. Accordingly, Beernink '439 fails to teach or suggest “at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol,” as recited in claim 1. For at least this reason, Beernink '439 cannot anticipate claim 1.

Independent claim 15, while of different scope, recites elements similar to those recited in independent claim 1. For example, independent claim 15 recites, *inter alia*,

"wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol" emphasis added. Contrary to the allegations of the Office Action, Beernink '439 fails to teach the elements recited in independent claim 15. Accordingly, independent claim 15 is not anticipated by the prior art at least for reasons similar to those discussed above with respect to independent claim 1. Applicant respectfully requests withdrawal of the rejection of claim 15 under 35 U.S.C. § 102(b) and the timely allowance of independent claim 15.

Claims 2-6, 8-14, 16, 18-24, and 26-32 each depend from one of independent claims 1 and 15, and are allowable for at least the reasons stated above with respect to independent claims 1 and 15. In addition, each of the dependent claims recites unique combinations that are neither taught nor suggested by the cited art, and therefore each is also separately patentable.

Independent claims 33 and 34, while of different scope, each recite elements similar to those recited in independent claim 1. For example, independent claims 33 and 34 each recite, *inter alia*, "a database comprising templates that comprise a plurality of writing symbol patterns representing ways of writing symbols, wherein at least two of the templates comprising different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol." For at least this reason, Beernink '439 fails to teach each and every feature recited in independent claims 33 and 34. Accordingly, independent claims 33 and 34 are each allowable at least for reasons similar to those discussed above with respect to independent claim 1. Applicant respectfully requests the timely allowance of independent claims 33 and 34.

IV. Rejection of claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '438 in view of Beernink '439

Applicant respectfully traverses the rejection of independent claim 15 as being unpatentable over Beernink '438 in view of Beernink '439. A *prima facie* case of obviousness has not been established.

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . [R]ejections on obviousness cannot be sustained with mere conclusory statements." M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007) (internal citation and inner quotation omitted). "[T]he framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the prior art." M.P.E.P. § 2141(II). In rejecting a claim, "Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art." M.P.E.P. § 2141(III).

Independent claim 15 calls for a combination including, for example, "wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol." As discussed above with respect to claim 1, Beernink '438 fails to teach or suggest "wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 15.

The Examiner cited Beernink '439 as a teaching of returning a best interpretation among multiple interpretations. Office Action, page 18. Even assuming the Examiner's characterization of Beernink '439 is correct, which Applicant does not concede, Beernink '439 fails to cure the deficiencies of Beernink '438, discussed above. That is, Beernink '439 also, fails to teach or suggest "wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in claim 15.

In view of the mischaracterization of the prior art set forth above, the Examiner has neither properly determined the scope and content of the prior art nor ascertained the differences between the prior art and the combination of claim 15. Moreover, the Examiner has provided no motivation for one of ordinary skill in the art to modify the teachings of the prior art to achieve the claimed combinations. Accordingly, no reason has been articulated as to why one of ordinary skill in the art would find the claimed combination obvious in view of the prior art. For at least this reason, a *prima facie* case of obviousness has not been established. The rejection of claim 15 under 35 U.S.C. § 103(a) is thus improper and should be withdrawn.

V. Rejection of claims 7 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '439 in view of Sparr

Applicant respectfully traverses the rejection of claims 7 and 25 as being unpatentable over Beernink '439 in view of Sparr. A *prima facie* case of obviousness has not been established.

Claim 7 depends from independent claim 1, and thus includes all the elements thereof. As set forth above, Beernink '439 fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in claim 1 and required by claim 7. Sparr fails to cure the deficiencies of Beernink '439. That is, Sparr also fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different ones of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 1 and required by claim 7.

Claim 25 depends from independent claim 15, and thus includes all the elements thereof. As set forth above, Beernink '439 fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different one of the plurality of writing symbol patterns which represent different ways of writing a single symbol." Sparr fails to cure the deficiencies of Beernink '439. That is, Sparr also fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different one of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 15 from which claim 25 depends.

In view of the mischaracterization of Beernink '439 discussed above, the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and either of claims 7 or 25. Moreover, the Examiner has provided no motivation for one of ordinary skill in the art to modify the teachings of the prior art to achieve the claimed combinations. Thus, the Examiner has failed to clearly articulate a reason why either of claims 7 or 25 would

have been obvious to one of ordinary skill in the art in view of the prior art. Accordingly, a *prima facie* case of obviousness has not been established with respect to either of claims 7 or 25, and the rejection under 35 U.S.C. § 103(a) must be withdrawn.

VI. Rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Beernink '439 in view of Kadashevich

Applicant respectfully traverses the rejection of claim 17 as being unpatentable over Beernink '439 in view of Kadashevich. A *prima facie* case of obviousness has not been established. Claim 17 depends from independent claim 15, and thus includes all the elements thereof. As set forth above, Beernink '439 fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different one of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in claim 15 and required by claim 17. Kadashevich fails to cure the deficiencies of Beernink '439. That is, Kadashevich also fails to teach or suggest at least "wherein at least two of the plurality of templates comprise different one of the plurality of writing symbol patterns which represent different ways of writing a single symbol," as recited in independent claim 15 and required by claim 17.

In view of the mischaracterization of Beernink '439 discussed above, the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the combination of claim 17. Moreover, the Examiner has provided no motivation for one of ordinary skill in the art to modify the teachings of the prior art to achieve the claimed combinations. Thus, the Examiner has failed to clearly articulate a reason why claim 17 would have

been obvious to one of ordinary skill in the art in view of the prior art. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 17, and the rejection under 35 U.S.C. § 103(a) must be withdrawn.

CONCLUSION


In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of the pending rejections in this application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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Dated: April 22, 2009

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